

Notice of Allowability

Application No.

10/757,519

Applicant(s)

HUANG ET AL.

Examiner

Art Unit

David Nhu

2818

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 1/15/04.
2. ☒ The allowed claim(s) is/are 1-22.
3. ☒ The drawings filed on 15 January 2004 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

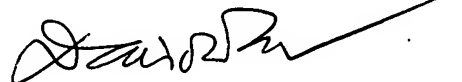
* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____



REASONS FOR ALLOWANCE

1. Claims 1-22 are allowed.
2. The following is an examiner's statement of reasons for allowance: None of the references of record teaches or suggests in claims 1, 12: forming a first stacked structure in a portion of the second conductive layer and the dielectric layer, and revealing the first conductive layer exposed by the first stacked structure; conformably depositing a mask layer over the first conductive layer and covering the first stacked structure thereon; and patterning the mask layer to simultaneously form a capacitor and a second stacked structure on the semiconductor structure, wherein the capacitor comprises the first stacked structure, a patterned mask layer thereon and a patterned first conductive layer therebelow and the second stacked structure comprises a patterned first conductive layer and a patterned mask layer stacked thereabove (as cited in claim 1); forming a first stacked structure in a portion of the second conductive layer and the dielectric layer, and revealing the first conductive layer exposed by the first stacked structure; conformably depositing a mask layer over the first conductive layer and covering the first stacked structure thereon; respectively forming a first pattern, a second pattern and a third pattern on the mask layer within the capacitor region, the conductive region and the MOS region, wherein the first pattern covers the mask layer over the first stacked structure and wherein the second pattern and the third pattern respectively covers other portion of the mask layer; and patterning the mask layer and the first conductive layer to simultaneously form a capacitor and a second stacked structure and a third stacked structure on the semiconductor structure respectively within the capacitor region, the conductive region and the MOS region, wherein the capacitor comprises the first stacked

Art Unit: 2818

structure, a patterned mask layer thereon and a patterned first conductive layer therebelow and the second stacked structure and the third stacked structure, each comprises a patterned first conductive layer and a patterned mask layer stacked thereabove (as cited in claim 12)

3. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

CONCLUSION

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Tsai(6,586,299 B1): Mixed Mode Process.

Huang (5,918,119): Process for Integrating MOSFET Devices.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Nhu, (571)272-1792. The examiner can normally be reached on Monday-Friday from 7:30 AM to 5:00 PM.

The examiner's supervisor, David Nelms can be reached on (571)272-1787.

The fax phone number for the organization where this application or proceeding is assigned is (703)872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

David Nhu



March 3, 2005

DAVID NHU
PRIMARY EX